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20. A NOTE ON THE TAXONOMY OF A SPECIES OF *TACHYSURUS* LACÉPÈDE (PISCES: TACHYSURIDAE)

(*With a text-figure*)

During a study of the shore fishes of Goa, a specimen of *Tachysurus* Lacépède collected by Dr. S. W. Kemp from Mormugoa Bay in September 1916 was tentatively determined as *T. jatius* (Hamilton 1822). A perusal of the pertinent literature, however, clearly indicates that two species have been confused under the name *jatius* Hamilton. The first species has an edentulous palate and this is clearly the fish named by Hamilton (1822) and later figured by Day (1877, pl. 56, fig. 4) and redescribed by Misra (1959) under the genus *Hemipimelodus* Bleeker. The other related species has two small oval patches of granular palatal teeth and this has up to now apparently been confused by Ichthyologists (Blyth 1860; Day 1877; Munro 1955) with, and accepted as *jatius* Hamilton. This species is described below and is most probably a new species of *Tachysurus* and not congeneric with Hamilton's *jatius*. A new name for this species of *Tachysurus* is not, however, being proposed for the present in view of the limited material available for study.

The type species of the genus *Tachysurus* Lacépède, 1803 is *Tachysurus sinensis* Lacépède which has teeth on the palate; *Pimelodus borneensis* Bleeker, the type species of *Hemipimelodus* Bleeker, 1858, has, however, an edentulous palate. This is the chief taxonomic character for differentiating the two genera (*vide* Weber & de Beaufort 1913; Fowler 1941; Smith 1945; and Misra 1959).

In the collections of the Zoological Survey of India Day's (1877) figured example of *Arius jatius* (Hamilton) corresponding to Plate 56, Fig. 4 (Reg. No. Cat. 473) and another specimen of *A. jatius* (Reg. No. F 13460/1) with an edentulous palate, are available for comparison. Unfortunately, no specimen of Day's *Arius jatius* with palatal teeth are

available in the collections for study. A detailed description of the specimen measuring 126 mm. in standard length, from Mormugoa Bay (ZSI Reg. No. F 6045/2) is given below to facilitate further work on this particular species.

Tachysurus sp.

DI. 7 A 19 P I.10 G.R. 7+1+11, lanceolate.

Depth of body 4.84, head length 3.40; both in standard length. Height of head at occiput 1.44, width of head 1.54; both in head length. Eye diameter 4.11 in head length, 1.50 in interorbital width, 1.50 in snout length. Upper jaw longer than lower jaw, extent of mouth gape

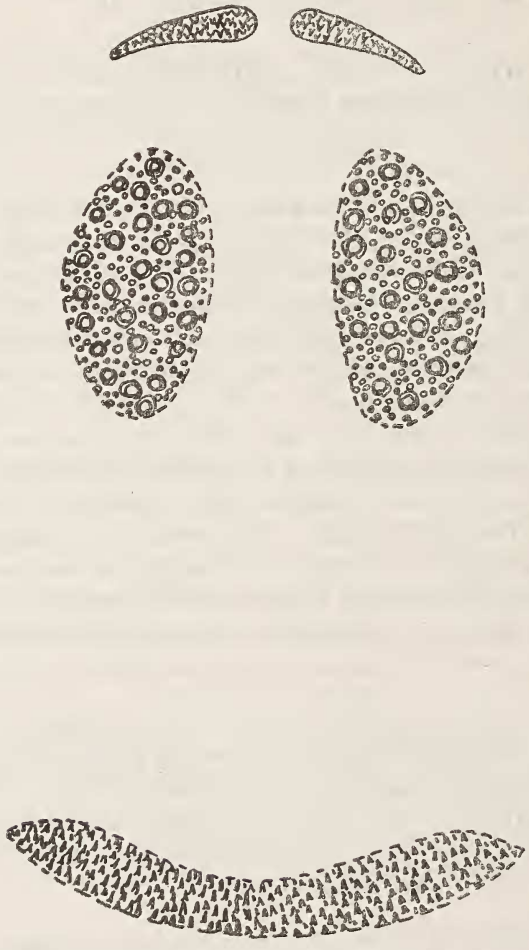

Fig. 1. Dentition in the specimen of *Tachysurus* from Goa (Diagrammatic).

equals one-third of head length. Posterior portion of head sparsely granulated, occipital process more thickly so; median longitudinal groove

on head narrow and continued almost to base of occipital process which is keeled and reaches the narrow V-shaped basal bone of dorsal fin.

Barbels—six, maxillary barbels shorter than head, reach slightly beyond base of pectoral fin ; outer mandibular reach gill opening.

Teeth (text-figure)—Villiform in a continuous band on premaxillaries, five times as long as wide. Palatal teeth in two small oval groups, globular, separated from jaw teeth by a space equal to one and half times length of patch; length of patch less than half eye-diameter. Vomerine teeth absent.

Fins—Dorsal spine strong, serrated on both sides, as long as head without snout. Pectoral spine slightly shorter than dorsal spine, serrated on both sides. Base of adipose dorsal 4/5 of rayed dorsal. Caudal (broken) forked.

Colour (in alcohol): Light brownish, silvery below. Fins yellowish, upper edge of rayed and adipose dorsals dusky.

Distribution: Goa, estuaries and rivers of Ceylon, and Sitang River (Burma).

Remarks : Day (1877) described the teeth on the palate of *Arius jatius* (Hamilton) as 'globular, in a small oval patch posteriorly, scarcely exceeding half the diameter of the eye ; they may be entirely absent' and figured a specimen from Burma and remarked " The specimen figured has no teeth whatsoever on the palate and is an *Hemipimelodus*, but having closely compared it with four more specimens having teeth as described, I feel convinced of their identity." In our collections we have a specimen registered as *Arius jatius* (Hamilton) collected by Dr. F. Day from Calcutta [ZSI Reg. No. Cat. 187]. The specimen has palatal teeth in two large, semi-ovate patches, about 1.5 times the diameter of the eye and agrees well with Day's figured specimen of *Arius gagora* (Hamilton) (ZSI Reg. No. Cat. 421). This specimen has been correctly redetermined as *Tachysurus gagora* (Hamilton) by Chandy (1953).

Munro (1955) reported *jatius* Hamilton from estuaries and rivers of Ceylon and included the species under the genus *Pseudarius* Bleeker, 1863 as the palatal teeth are globular, in two small oval patches. Misra (1959), however, described *jatius* Hamilton with no palatal teeth and hence referred the species to the genus *Hemipimelodus*.

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21. SOME NEW FOOD PLANTS OF *DROSICHA MANGIFERAE* (GREEN) IN MADHYA PRADESH (HOMOPTERA: MARGARODIDAE)

Drosicha (*Monophlebus*) *mangiferae* (*stebingi*) (Green), the giant mealy bug, is a widely distributed, sporadic, polyphagous pest, throughout India. During 1959-61, it caused considerable loss to citrus, guava, fig, ber and mango at Gwalior and some other places in Madhya Pradesh. A survey was carried out to investigate its food plants. Rahman and Latif (1944) reviewed the host plants of the pest recorded in India by previous workers and reported sixty-two host plants in the Punjab including twenty-three not previously recorded but found it to be a serious pest of mango only. Wasiual Haque (1955), Sen & Prasad (1956) and Pruthi & Batra (1960) added further lists of host plants of the pest. The author (1968) reported sixty-six food plants of economic importance in M.P. and twenty-eight of them, namely Bael (*Aegle marmelos*), Anwala (*Phyllanthus emblica*), Chikoo (*Achres sapota*), Mahandi (*Lawsonia alba*), *Acalypha* sp., *Zinnia* sp., Quisqualis (*Quisqualis indica*), Poppy (*Papaver* sp.), *Bouganvillea* sp., Madanmasta (*Artabotrys odoratissimus*), Parwal (*Trichosanthes dioica*), Mitha neem (*Melia azedarach*), Amaltas (*Cassia fistula*), Paper flower (*Helicrysum* sp.), Askand (*Withania somanifera*), Dhencha (*Carthamus tinctorius*), Adhasisi (*Xanthium strumatium*), Akua (*Calotropis* sp.), Brinjal (*Solanum melongena*), Badidudhi (*Euphorbia pulcherrima*), Waghata (*Capparis zeylanica*), Mohwa (*Bassia*